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| 10/614,887  | 07/09/2003  | So Hyun Park         | SI-0036             | 8952             |
| 34610 7590 04/04/2008<br>KED & ASSOCIATES, LLP<br>P.O. Box 221200<br>Chantilly, VA 20153-1200 |             |                      |                     |                  |
| EXAMINER  |             |                      |                     |                  |
| DOAN, KIET M  |             |                      |                     |                  |
| ART UNIT  |             | PAPER NUMBER         |                     |                  |
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/614,887

**Applicant(s)**

PARK, SO HYUN

**Examiner**

KIET DOAN

**Art Unit**

2617

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 07 February 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-5, 8-15, 17-21, 23-30 and 32-38 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 10 is/are allowed.
- 6) ☒ Claim(s) 1-5, 8-15, 17-21, 23-30 and 32-38 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### ***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 02/07/2008 has been entered.

- Claims 6-7, 16, 22, 31 are cancelled.

### ***Claim Objections***

2. Claims 1, 12, 21, 30 are objected to because of the following informalities: limitation "determining whether a called subscriber is a subscriber of a call-forwarding service and set up call forwarding, i.e.," is difficult to understand what is the determining result will be. Such as what happen when

if (when) the called subscriber is a subscriber of a call-forwarding service, or  
if (when) called subscriber is **not** a subscriber of a call-forwarding service,

For the purposes of examination, the examiner will interpret the system set up call forwarding for the subscriber when the subscriber roaming to different location. Appropriate correction is required.

Claim 18 objected to because of the following informalities: "indicating that there is no response from the called subscriber, when the called subscriber is a subscriber of

Art Unit: 2617

the call forwarding service” is difficult to understand what the objective is. It can be mean calling to a called number and if no response than the call is forward to different location. Appropriate correction is required.

***Response to Arguments***

3. Applicant's arguments with respect to claims 1, 12, 21, 30 have been considered but are moot in view of the new ground(s) of rejection.

***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. **Claims 1, 21, 30** are rejected under 35 U.S.C. 103(a) as being unpatentable over Andersson et al. (US 6,693,894 B1) in view of Alperovich et al. (US 5,978,673).

Consider **claims 1, 21 and 30**. Andersson discloses a method of forwarding packet calls in mobile communication system, comprising:

determining whether a called subscriber is a subscriber of a call-forwarding service and has set up a call-forwarding unconditional function in response to a packet call set-up request (Col. 1, Lines 25-55, Fig.1 illustrate and teach calling party using VOIP call directed to called party and Home mobile network in step106 determine and set up call-forwarding and further Col. 3, Lines 5-63 teach directed forwarding/routing call); and

setting up a packet call directed to a first IP address of the called subscriber for forwarding to a forward to a second predetermined IP address based on a result of said determining (Col. 1, Lines 26-34, Col. 4, Lines 5-10 and Col. 8, Lines 22-31 teach "calling party" as read on first IP address forwarding call to "called party" as read on second IP address wherein using IP network, since Andersson teach the routing call but silent on a first IP address and second IP address. However, the communication between "calling party" and "called party" is connected using IP network therefore, the office interpreted each of calling party and called party obtain own IP address). Andersson teaches all the claimed limitations discussed above **but is silent on**

wherein the second predetermined IP address is previous designated by the called subscriber for storage in at least one network storage element and wherein the packet call is set up based on the second predetermined IP address when the called subscriber is determined to have subscribed to the call-forwarding unconditional function.

In an analogous art, Alperovich teaches "Proving location-Based call forwarding within a mobile telecommunications network". Further, **Alperovich teaches** wherein the second predetermined IP address is previous designated by the called subscriber for storage in at least one network storage element and wherein the packet call is set up based on the second predetermined IP address when the called subscriber is determined to have subscribed to the call-forwarding unconditional function (Abstract, Col. 2, lines 15-25, Col. 5, lines 65-67, Col.6, lines 1-28 teach

predetermined forward number by the subscriber so that the call is reroute to where ever the subscriber desired).

It would have been obvious at the time that the invention was made to modify Andersson with Alperovich's system, such that determine and setup call forwarding and forwarding to a forward to a second predetermined IP address wherein the second predetermined IP address is previous designated by the called subscriber to provide means for forwarding income call to any location that the subscriber desired.

6. Claim 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Andersson et al. (US 6,693,894 B1) in view of Alperovich et al. (US 5,978,673) and further view of Wang et al. (US 6,493,551 B1).

Consider **claim 12**. The combination of Andersson and (Alperovich teaches forwarding to a second predetermined IP address). Andersson teaches method of forwarding packet calls in mobile communication system and comprising:

receiving routing information of a called subscriber according to a packet call set-up request (Col. 1, Lines 35-39, Fig.1, Illustrate and teach IP network receiving routing information and routes the call to Home mobile network where the subscriber received). Andersson and Alperovich teaches the claimed limitations as discussed above **but is silent on**

paging a mobile handset of the called subscriber, wherein when no response is received from said paging, determining whether the called subscriber subscribes to a

call forwarding service and then setting up a packet call directed to a first IP address of the called subscriber and forwarded to a second predetermined IP address.

In an analogous art, Wang teaches "GSM mou bypass for delivering calls to GSM subscribers roaming to CDMA networks". Further **Wang teaches** paging a mobile handset of the called subscriber, wherein when no response is received from said paging, determining whether the called subscriber subscribes to a call forwarding service and then setting up a packet call directed to a first IP address of the called subscriber and forwarded to a second predetermined IP address (Col.4, lines 25-28, Col.8, lines 21-34 teach setting up forwarding call from HLR).

It would have been obvious at the time that the invention was made to modify Andersson with Wang's system, such that receiving routing information of a called subscriber according to a packet call set-up request and forwarding to second predetermined IP address is previously designated by the called subscriber to provide means for subscriber receiving call at any location that the subscriber desired.

**7. Claims 2-5, 8, 9, 11, 13-15, 17-20, 23-26, 28, 32-34, 37** are rejected under 35 U.S.C. 103(a) as being unpatentable Andersson et al. (US 6,693,894 B1) in view of Wang et al. (US 6,493,551 B1) and further view of Bichot et al. (US 7,050,416 B2).

Consider **claims 2, 13**. The combination of Andersson, Alperovich and Wang teaches all the claimed limitations discussed above **but is silent on** the method of claim 1, further comprising: registering the call forwarding service by adding a parameter having forwarding information including the second IP address to packet

service subscriber data transmitted from an HLR to an SGSN when the HLR changes the subscriber information stored in a database of the SGSN.

In an analogous art, Bichot teaches "Technique for IP communication among wireless devices". Further, **Bichot teaches** the method of claim 1, further comprising: registering the call forwarding service by adding a parameter having forwarding information to packet service subscriber data transmitted from an HLR to an SGSN when the HLR changes the subscriber information stored in a database of the SGSN (Abstract, Col. 3, Lines 20-47).

Therefore, it would have been obvious at the time that the invention was made to modify Andersson and Alperovich and Wang with Bichot system, such that transmitted data/information from an HLR to an SGSN and information stored in a database of the SGSN to provide means for security of keeping record information of subscriber.

Consider **claim 3**. The combination of Andersson and Alperovich teaches the method of claim 1. In addition, Bichot teaches wherein the determining is performed at an HLR that received a called subscriber routing information request (Bichot, Col. 3, Lines 26-34).

Consider **claim 4**. The combination of Andersson and Alperovich teaches the method of claim 1. Further, Bichot teaches comprising when the called subscriber is determined to have subscribed to the call forwarding service and set up the call-



forwarding unconditional function: transmitting from an HLR to a Gateway General Packet Radio Service (GPRS) Service Node (GGSN) first routing information for setting up the packet call directed to the IP address of the called subscriber and forwarded to the forward to the second IP address (Bichot, Col. 2, Lines 10-24, Col. 3, Lines 20-47).

Consider **claim 5**. The combination of Andersson, Alperovich and Bichot teaches the method of claim 4. Further, Andersson teaches wherein the first routing information includes forwarding information, in a case where the called subscriber subscribes to the call forwarding service (Andersson, C3, L5-20, Fig.2, No.204).

Consider **claims 8-9, 17**. The combination of Andersson, Alperovich, wang and Bichot teaches the method of claim 2. Further, Andersson teaches wherein the second IP address includes at least one of a previously designated URL address, a certain server address and another mobile station address (Andersson, Col. 3, Lines 45-63, Fig.3, Illustration and described).

Consider **claims 11, 20**. The combination of Andersson, Alperovich, Wang and Bichot teaches the method of claim 1. Further, Andersson teaches wherein the setting up comprises: transmitting first routing information including forwarding information from a first HLR to a GGSN; and checking forwarding information from the received first routing information, wherein in a case where setting up the packet call forwarded

to another mobile station is impossible according to a result of said checking, setting up a forwarded packet call by routing the packet call using internet network according to the received forwarding information (Andersson, Abstract, Col. 8, Lines 23-31).

Consider **claim 14**. The combination of Andersson, Alperovich and Wang teaches the method of claim 12. Further, Bichot teaches wherein the determining step is performed at an SGSN which pages a mobile handset of the called subscriber (Bichot, Fig.1, Illustrate and described).

Consider **claims 15, 19**. The combination of Andersson, Alperovich and Wang teaches the method of claim 12. Further, Bichot teaches wherein when the called subscriber subscribes to the call forwarding service, an SGSN transmits to a GGSN information including forwarding information for setting up a packet call directed to the first IP address of the called subscriber and forwarded to forward to the second IP address (Bichot, Col. 3, Lines 25-47, Col. 4, Lines 11-39).

Consider **claim 18**. the combination of Anderson, Alperovich and Wang teaches the method of claim 15, but fails to explicitly disclose wherein the information including forwarding information comprises information indicating that there is no response from the called subscriber, when the called subscriber is a subscriber of the call forwarding service.

The examiner take **Official notice** that "forwarding information indicating that there is no response from the called subscriber, when the called subscriber is a subscriber of the call forwarding service" limitation is well know, when calling to a number that ring no answer, then the call is forwarding to selected destination such as voice mail, different location, i.e., depend on the users of mobile handset set up).

It would have been obvious at the time that the invention was made to modify, such that "forwarding information indicating that there is no response from the called subscriber, when the called subscriber is a subscriber of the call forwarding service" to provide means for the subscriber can receiving call at any location that the He/She desired.

Consider **claims 23, 32**. The combination of Andersson and Alperovich teaches the method of claim 21. Further, Andersson wherein the forwarding address is one of a predetermined URL address, a predetermined server address, or an address corresponding to another mobile terminal (Andersson, Col. 3, Lines 64-67, Col. 4, Lines 1-28).

Consider **claims 24, 25, 28, 33, 34 and 37**. The combination of Anderson and Alperovich discloses the method of claim 21, but fails to explicitly teach wherein the forwarding is performed unconditionally and sending a paging signal the mobile subscriber terminal, wherein the forwarding is performed only when no response is received from the paging signal..

The examiner take **Office Notice** that the feature of call “forwarding is performed unconditionally” is well know when calling party called to a number and receives ringing no answer then forwarding is performed unconditionally or that forwarding is performed only when no response is received from the paging signal.

It would have been obvious at the time that the invention was made to modify Anderson and Alperovich such that call forwarding is performed unconditionally or when no response is received from a paging signal to provide means for the users able to receive calls where ever a user desires.

Consider **claims 26, 35**. The combination of Andersson and Alperovich teaches claim 21/30. Further, Alperovich teaches determining whether the mobile terminal subscriber is a subscriber of a call-forwarding service, wherein the forwarding performed based on a result of the determining step (Alperovich, Col. 2, lines 3-24 teach HLR determined the location of mobile station and forwards the incoming call to the mobile).

**8. Claims 27, 29, 36, 38** are rejected under 35 U.S.C. 103(a) as being unpatentable Andersson et al. (US 6,693,894 B1) in view of Alperovich et al. (US 5,978,673) and further view MacNamara et al. (US 2004/0203678 A1).

Consider **claims 27, 36**. Andersson and Alperovich teaches al the claimed limitations discussed above **but is silent on** determining a type of call-forwarding

service of the mobile terminal subscriber; and forwarding the call based on the type of call-forwarding service.

**MacNamara teaches** determining a type of call-forwarding service of the mobile terminal subscriber; and forwarding the call based on the type of call-forwarding service (Paragraphs [0005], [0023] teach type of ring sequence as read on type of call-forwarding service).

It would have been obvious at the time that the invention was made to modify Andersson and Alperovich with MacNamara's system such that forwarding the call based on the type of call-forwarding service to provide means for the set up number of ring before forwarding

Consider **claims 29, 38**. The combination of Andersson and Alperovich with MacNamara teaches the method of claim 28, wherein the type of call-forwarding service is one where calls are forwarded to the forwarding address after no response has been received from a paging signal for a predetermined period of time (MacNamara, Paragraphs [0020-0022]).

***Allowable Subject Matter***

9. Claim 10 is allowed.

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to KIET DOAN whose telephone number is (571)272-7863. The examiner can normally be reached on 8am - 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Appiah N. Charles can be reached on 571-272-7904. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2617

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Kiet Doan/  
Examiner, Art Unit 2617

/Charles N. Appiah/

Supervisory Patent Examiner, Art Unit 2617